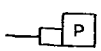
GRAPHICAL SYMBOLS FOR DRAWINGS

94. Thermostat (Self Contained)

95. Thermostat (Remote Bulb)

96. Pressurestat

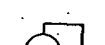


97. Hand Expansion Valve

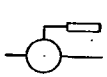
98. Automatic Expansion Valve

99. Thermostatic Expansion Valve

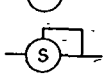
100. Evaporator Press. Regulating Valve, Throttling Type



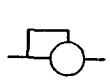
101. Evaporator Press. Regulating Valve, Thermostatic Throttling Type



102. Evaporator Press. Regulating Valve, Snap-Action Valve

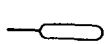


103. Compressor Suction Pressure Limiting Valve, Throttling Type



104. Hand Shut Off Valve

105. Thermal Bulb



106. Scale Trap

107. Dryer

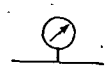
108. Strainer

109. High Side Float

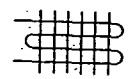
Refrigerating

110. Low Side Float

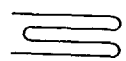
111. Gage



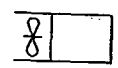
112. Finned Type Cooling Unit, Natural Convection



113. Pipe Coil



114. Forced Convection Cooling Unit



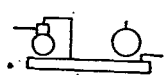
115. Immersion Cooling Unit

116. Ice Making Unit

117. Heat Interchanger

118. Condensing Unit, Air Cooled

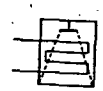
119. Condensing Unit, Water Cooled



120. Compressor

121. Cooling Tower

122. Evaporative Condenser



123. Solenoid Valve

124. Pressurestat With High Pressure Cut-Out

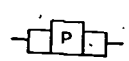


TABLE 1. SPECIFIC HEAT OF SOLIDS[a]

MATERIALS	TEMPERATURE F	SPECIFIC HEAT	AUTHORITY
Alloys			
Brass, Red	32	0.0899	S
Brass, Yellow	32	0.0883	S
Bronze (80Cu, 20Sn)	57–208	0.0862	S
Monel Metal	68–2370	0.127	S
Aluminum	80–212	0.212	S
Asbestos	68–208	0.195	S
Brickwork	———	0.195	H
Carbon (Graphite)	104–1637	0.314	I
Coal	———	0.278	H
Coke	———	0.201	H
Concrete	———	0.270	H
Copper	64–212	0.0928	S
Fire Clay Brick	77–1832	0.258	I
Glass			
Crown	50–122	0.161	S
Flint	50–122	0.117	S
Gold	64	0.0312	S
Gypsum	———	0.259	H
Ice	32	0.487	S
Ice	−40	0.434	S
Iron, Pure	32	0.1043	S
Iron, Pure	32–600	0.127	M
Iron, Cast	68–212	0.1189	H
Iron, Wrought	59–212	0.1152	H
Lead	32	0.0297	S
Nickel	32	0.1032	S
Masonry	———	0.2159	H
Plaster	———	0.2	H
Platinum	58–212	0.0319	S
Rocks			
Gneiss	63–210	0.196	S
Granite	54–212	0.192	S
Limestone	59–212	0.216	S
Marble	32–212	0.21	S
Sandstone	———	0.22	S
Silver	32	0.0536	S
Steel	———	0.1175	H
Sulphur	240–320	0.220	S
Silica Brick	77–1832	0.263	I
Tin	77	0.0548	S
Woods (Average)	68	0.327	S
Zinc	32	0.0913	S

TABLE 2. SPECIFIC HEAT OF LIQUIDS

LIQUID	TEMPERATURE F	SPECIFIC HEAT	AUTHORITY
Alcohol, Ethyl	32	0.548	S
Alcohol, Methyl	59–68	0.601	S
Glycerine	59–122	0.576	S
Lead (Molten)	360	0.041	H
Mercury	68	0.03325	S
Petroleum	70–136	0.511	S
Sea Water			
Sp. Gr. 1.0043	64	0.980	S
Sp. Gr. 1.0463	64	0.903	S
Water	59	1.000	S

TABLE 3. SPECIFIC HEAT OF GASES AND VAPORS

SUBSTANCE	TEMPERATURE F	SPECIFIC HEAT AT CONSTANT PRESSURE	RATIO OF SPECIFIC HEAT C_p/C_v	SPECIFIC HEAT AT CONSTANT VOLUME (COMPUTED)	AUTHORITY
Air	32–392	0.2375	1.405	0.169	S
Ammonia	80–392	0.5356	1.277	0.419	S
Carbon Dioxide	52–417	0.2169	1.3003	0.1668	S
Carbon Monoxide	79–388	0.2426	1.395	0.1736	S
Coal Gas	68–1900	0.3145	———	———	S
Flue Gas	———	0.24 (Approx.)	———	———	H
Hydrogen	70–212	3.41	1.419	2.402	S
Nitrogen	32–392	0.2438	1.41	0.1729	S
Oxygen	55–404	0.2175	1.3977	0.155	S
Water Vapor	212	0.421	1.305	0.322	S
Water Vapor	356	0.51	———	———	S

[a]See also The Specific Heat of Thermal Insulating Materials, by Gordon B. Wilkes and Carl O. Wood (A.S.H.V.E. TRANSACTIONS, Vol. 48, 1942, p. 493).

NOTES: When one temperature is given the true specific heat is given, otherwise the value is the mean specific heat between the given limits.

AUTHORITIES: S—Smithsonian Physical Tables, 1933; I—International Critical Tables; H—Heating, Ventilation and Air Conditioning, by L. A. Harding and A. C. Willard; M—Engineers' Handbook, by Lionel S. Marks.